CLAIMS

1. (Amended) A blood analysis apparatus comprising: a flow channel which connects between a blood inlet port and an outlet port; and plasma separating means disposed midway in the flow channel,

wherein said flow channel has an upstream portion of the flow channel elongated along a centrifugal force pressurizing direction and a downstream portion elongated in a direction opposite to the a centrifugal force pressurizing reverse direction;

wherein said plasma separating means is positioned between the upstream and downstream portions of the flow channel and includes a blood cell fraction container which is located in the centrifugal force pressurizing direction side, and in which a blood cell fraction is precipitated and received;

wherein the upstream and downstream portions of said flow channel are brought into contact with the blood cell fraction container, and are constituted to communicate with each other in an upper space of the blood cell fraction container;

wherein at least a part of said flow channel is formed as a U-shaped flow channel, and a lowermost portion of the U-shaped flow channel constitutes said blood cell fraction container; and

a capacity of the blood cell fraction container positioned in a centrifugal force pressurizing direction from an upper inner wall of the lowermost portion of the U-shaped flow channel is larger than the amount of the blood cell fraction in the blood introduced into the flow channel.

2. (Deleted)

3. (Deleted)

4. The blood analysis apparatus according to claim 1, further comprising:

analysis means for analyzing components of the plasma, the analysis means being disposed between said plasma separating means and said outlet port.

5. The blood analysis apparatus according to claim 1, wherein a blood collecting needle is attachable to said blood inlet port.

6. A plasma separation method comprising the following steps of:

(1) providing a chip-shaped blood analysis apparatus comprising:

a flow channel for connecting a blood inlet port to an outlet port, the flow channel having an upstream portion

elongated along a centrifugal force pressurizing direction from the blood inlet port and a downstream portion elongated in a direction opposite to the centrifugal force pressurizing direction; and

plasma separating means located between the upstream and downstream portions of the flow channel and including a blood cell fraction container which is located in a centrifugal force pressurizing direction side and in which the blood cell fraction is precipitated and received, the upstream and downstream portions of the flow channel being brought into contact with the blood cell fraction container and constituted to communicate with each other in an upper space of the blood cell fraction container;

wherein at least a part of said flow channel is formed as a U-shaped flow channel, a lowermost portion of the U-shaped flow channel constitutes said blood cell fraction container, and a capacity of the blood cell fraction container positioned in a centrifugal force pressurizing direction from an upper inner wall of the lowermost portion of the U-shaped flow channel is larger than the amount of the blood cell fraction in the blood introduced into the flow channel;

(2) introducing a whole blood sample into the flow channel from the blood inlet port; and

(3) centrifuging the blood analysis apparatus in such a manner that the blood cell fraction container is disposed

in the centrifugal force pressurizing direction so as to precipitate blood cell components in a blood sample in said blood cell fraction container, so that the plasma separated as centrifugal supernatant is allowed to continuously exist in both of the upstream and downstream portions of the flow channel while the plasma contacts with blood cell fraction in the blood cell fraction container.

7. The plasma separation method according to claim 6, wherein said blood analysis apparatus further comprises analysis means for analyzing the components in the plasma, the analysis mean being disposed between the plasma separating means and the outlet port, and

wherein the plasma continuously existing in the upstream and downstream portions of said flow channel is fed into the analysis means after said step (3).